1989

# Three Plants, Three Futures

Lowell Turner
*Cornell University*, lrt4@cornell.edu

# Three Plants, Three Futures


## Abstract

To spread teamwork and cooperation, managers need to reform themselves—especially their attitudes about workers. At NUMMI, management has provided a system of work and rewards that has earned the loyalty of most employees and local union leaders.



## Keywords

New United Motor Manufacturing Inc., NUMMI, productivity, manufacturing, United States, industrial relations


## Disciplines

Human Resources Management | Unions

## Comments


### Suggested Citation

Turner, L. (1989). Three plants, three futures [Electronic version]. *Technology Review, 92*(1), 38-45.

# Three Plants, Three Futures

BY LOWELL TURNER

*To spread teamwork and cooperation, managers need to reform themselves—especially their attitudes about workers.*

AUTO
IN THE
1990s

New United Motor Manufacturing, Inc. (NUMMI), the General Motors-Toyota joint venture in Fremont, Calif., has shown that U.S. automakers can achieve Japanese levels of productivity and quality. As a result, NUMMI's "team concept" has become a model for work reorganization in the entire industry. General Motors is trying to spread elements of the NUMMI model to its plants across the country. Chrysler has negotiated "modern operating agreements" based on team organization at several plants. Even Ford, the most successful U.S. auto company in recent years, has begun to move toward NUMMI-style work systems.

But while the need to reorganize work has been accepted, actually implementing some version of the NUMMI model beyond a few demonstration plants has proven elusive. Successfully reorganizing work requires changing institutions that have shaped the auto industry for half a century—in particular, the system of labor-management relations established in the 1930s and 1940s between the United Auto Workers Union (UAW) and the auto companies.

Traditionally, management in the mass-production auto industry has been hierarchical and quite often authoritarian. This system is personified by the foreman who, functioning as a kind of "drill sergeant," enforces shop-floor discipline. Industrial unionism was a response to the abuses of that system. Union contracts spell out the rights of individual workers through detailed job definitions. Seniority systems ensure that favoritism is not a factor in assigning jobs. And formal procedures for grievance and arbitration offer a mechanism to resolve disputes.

Such provisions have given unions a particular kind of power on the shop floor—the ability to regulate job descriptions and assignments. But in exchange, they have ceded to management the right to run the business as it sees fit, a principle enshrined in the "managerial prerogative" clause of most union contracts.

Recent initiatives to reorganize work challenge this labor-management relationship. They weaken traditional mechanisms for union power. Team organization usually means reducing the number of job classifications and allocating labor more flexibly, often at the price of weakening seniority protections and giving management wider discretion in assigning jobs. And fostering cooperation between labor and management means minimizing the use of formal grievance and arbitration, the traditional vehicle for the expression of union influence.

Of course, more cooperative forms of work organization can also lead to new kinds of union influence—in particular, a voice in decisions about how work is organized and how technology is used. This possibility has made reorganization attractive to some UAW leaders. However, unions have had little say in such decisions in the past, and today companies tend to reorganize work without much reference to union concerns.

In some cases, firms have tried to create Japanese-style plants while avoiding unionization altogether. Nissan and Honda have done this at their new facilities in Smyrna, Tenn., and Marysville, Ohio. And even at plants where unions have been established for years, local managers often attempt to reorganize work in a way that diminishes union influence.

This approach is shortsighted. In the long run, cooperation cannot be forced upon unwilling workers. The more managers use reorganization against the UAW, the more workers and the union will move to obstruct workplace changes such as teamwork.

For these reasons, the attitudes and actions of local management are crucial in determining whether work reorganization at a particular plant succeeds. Some high-level managers may have gotten this message, but they still have to persuade many middle managers and foremen who have not. Firms must convince not only their unionized workers but also

*LOWELL TURNER, a former union representative for the National Association of Letter Carriers, is a research associate at the Berkeley Roundtable on the International Economy at the University of California. This year he is a doctoral research fellow of the Social Science Research Council and the Max-Planck-Institut in Cologne, West Germany, where he is comparing changes in work organization and industrial relations in the U.S. and German auto and telecommunications industries.*

*At NUMMI, management has provided a system of work and rewards that has earned the loyalty of most employees and local union leaders.*

their own managerial personnel that reorganization is a good idea.

Such widespread organizational changes will be the product of a prolonged trial-and-error process. While it is too soon to know the ultimate result, three recent cases suggest some likely scenarios:

▶ At NUMMI itself, the team approach has been successful in part because Toyota managers realized how important it was to train their own staff in new ways of dealing with the work force. But even NUMMI has not developed exactly as managers had originally envisioned. In particular, the union plays a more independent role than is the case in Japanese auto plants.

▶ At the General Motors assembly plant in Van Nuys, Calif., the organizational innovations that have succeeded at NUMMI have so far fallen short—because of management's inability or unwillingness to reform its own practices. Managerial demands have sparked strong opposition among shop-floor workers.

▶ At GM's Plant #1 in Lansing, Mich., management and the local union have worked together to create a "homegrown" version of work reorganization that combines innovations like teams with features of traditional U.S. labor relations. This hybrid may be the most appropriate model for the U.S. auto industry.

---

CASE #1

# NUMMI

**Winning the Loyalty of the Work Force**

THE team concept has made possible large improvements in quality and productivity at NUMMI's Fremont, Calif., plant. For many workers, it has also enhanced work life. Management has provided a system of work and rewards that has earned the loyalty of a majority of the work force and union leadership.

At NUMMI, job classifications are minimized, with production workers in one category and skilled-trade workers in two others—compared with over a hundred classifications in the original GM Fremont plant. Workers are divided into teams, usually of five, each with a leader who is a union member.

Team leaders are carefully selected and trained by management. They check parts and equipment, do some repairs, fill in for absent members, keep records, and otherwise coordinate work. That includes leading team meetings, looking for ways to foster quality and productivity, and encouraging members to provide suggestions for improving production.

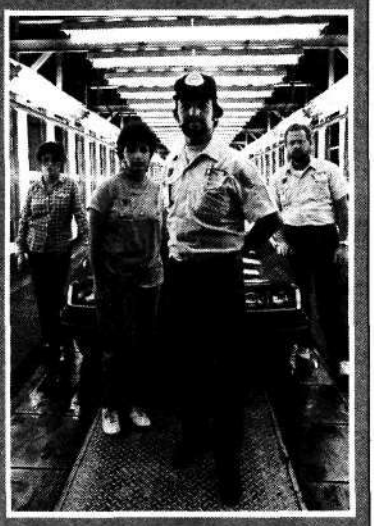
Team members are usually trained to perform all the jobs assigned to their unit so they can help out as the need arises. They are expected to maintain high standards and find ways to make work more productive.

Under the NUMMI team system, management has considerable flexibility in assigning jobs. For instance, qualifications count more than seniority—although some workers complain that management decisions about who is most qualified are arbitrary. Group leaders, the first line of management, oversee several teams. They are equivalent to the foremen of a traditional auto plant, although the idea is that they should function as problem solvers rather than as drill sergeants. While many group leaders seem to understand that new role, some do not. For this reason, a worker's experience with teams can depend in large part on the attitudes and behavior of the group leader.

The union has a variety of formal and informal mechanisms for exerting its influence at the NUMMI plant. In addition to the 15 full-time union representatives, there are 67 union coordinators. These full-time workers, who are elected by their peers, solve labor-management problems on the shop floor, without recourse to the formal grievance procedure. When a conflict cannot be resolved in this way, it is referred to a full-time union representative, who decides whether to file a grievance. For-

mal grievances do occur at NUMMI, although far less frequently than at a traditional auto plant.

Union leaders also regularly attend management meetings and participate at various levels of decision making. For example, they play a central role in hiring new employees. Finally, not only does the plant's union contract give workers wages comparable to those at other UAW-organized assembly plants, but it includes special provisions such as a promise not to lay off people except in the most adverse market circumstances. NUMMI made good on this promise when sales of the plant's Chevy Nova slumped badly last year.



**NUMMI workers found jobs and conditions that exceeded their expectations of life in an auto plant.**

In interviews with NUMMI workers, including opponents of the current local union leadership, I have yet to hear anyone express a preference for the old GM system. People like the fact that they are treated with some respect, turn out a high-quality product, work in a clean and efficient environment, and often find their advice and concerns actively solicited. Team leaders in particular are grateful to have more than just a job, and many thrive on their new leadership responsibilities and the opportunity to come up with creative solutions to production problems.

But this is not to say that NUMMI is a workers' utopia. The People's Caucus, an opposition group within the local union, has become a strong and visible force in the plant on the strength of its criticisms of the team system's limits. At NUMMI, caucus members argue, there is constant pressure to work harder and faster, not just smarter. They say that the close collaboration between union and management makes the two indistinguishable, and that as a result the union no longer provides strong representation for its members. Caucus members also maintain that the informal mechanisms for union involvement make for an undemocratic union, because they lead to too many closed-door meetings and behind-the-scenes deals between union leaders and management.

Whether these charges are true is a subject of lively debate within the work force at NUMMI. And yet supporters of the People's Caucus are careful to emphasize that they are also supporters of NUMMI and the team concept. They see themselves as striving to make the system better by making it more humane and more democratic.

When asked to explain workers' general support of the team concept, GM managers emphasize the "significant emotional event": before the plant opened as the site of the joint venture, it had been closed for two years. Workers who had been laid off returned to the facility humbled and grateful for their new jobs.

This may have influenced worker attitudes, but it's hardly the chief factor. Other plants have reopened without nearly the same kind of organizational success. Far more important is what workers face when they go back to work. At NUMMI, they found jobs and conditions that in many ways exceeded their expectations of life in an auto plant.

Management, from the executives at the top to the group leaders on the shop floor, emphasized garnering worker input and gaining consensus. What's more, they offered tangible benefits such as employment security in return for worker and union cooperation. In this way, they won the commitment of workers and union leaders to the new plan.

Paradoxically, this outcome was not entirely management's doing. The original intent was to exclude the union, hiring a brand new, thoroughly screened, and pliable work force—just as Nissan and Honda have done at their U.S. facilities.

But the UAW was entrenched in the former work force at the Fremont plant and gained the right to represent workers at the new plant as well. The union convinced the GM-Toyota joint venture to give former Fremont workers preference in hiring. It also negotiated full-time union representatives, which at first the company opposed, in addition to the many shop-floor union coordinators. The union presence at NUMMI has contributed to acceptance of the team system and, so far, to its success.

Since the plant opened in 1984, local union politics have also shown the potential to push the NUMMI model in new directions. In June 1988 union elections, workers sent a sophisticated message to management. By reelecting the union leadership, they communicated their overall support for the NUMMI system. By giving People's Caucus supporters a majority of the union-coordinator slots on the shop floor, they underlined their desire for more aggressive protection of union rights within that system.

PHOTO: ROBERT GUMPERT

CASE #2

# VAN NUYS

**Managers Force Participation**

ONE plant where GM management has invested a major effort to adopt the lessons of NUMMI is the Van Nuys assembly facility in Los Angeles, but no glowing productivity, quality, or cost improvements have yet been advertised. By all accounts, the team system and labor-management relations at the plant face a rocky future. Van Nuys illustrates what happens when management polarizes workers in its push for reorganization and fails to adequately screen and retrain its own front-line supervisors and middle managers.

The Van Nuys facility produces about 200,000 Camaros and Pontiac Firebirds each year. Since these cars sell for about $20,000 and thus occupy a specialty niche, the plant would seem to be a good candidate for multi-skilled and multi-task team organization. In 1986, the new manager Ernie Shaefer, previously in charge of the innovative Fiero plant in Pontiac, Mich., negotiated a labor agreement based on the team system with the union's shop bargaining committee. It included drastic reductions in job classifications and increased managerial flexibility in assigning jobs.

Management and cooperating union leaders presented the contract to the work force as a way to convince GM corporate headquarters that the Van Nuys plant, long threatened with shutdown, was worth keeping open. The rank and file rejected the agreement, but then the plant-closing threat was revived. Workers were inclined to take it seriously, since the second shift had already been laid off, and when they voted again, they passed the agreement by a small margin.

With the help of $20 million from California's Employment Training Panel, 125 workers were taught to be instructors. Then 1,100 team leaders were selected and trained for 10 weeks in the team concept. Finally, in May 1987, the entire remaining work force on both shifts received seven days of training, and the new system went into effect.

However, support for the agreement was never widespread, either in the work force—as the close margins of the two votes suggest—or among the local union leadership. And one month after the introduction of the system, a hotly contested local union election ousted the pro-team shop chairman (the highest UAW official in the plant). He was replaced by the previous local president, an opponent of the new agreement, who proceeded to pull the union out of all the joint labor-management committees that had been set up to administer and facilitate the team system.

Management responded by trying to move around the new shop chairman and his allies, with some success. Managers drew into the team process whoever was willing to participate, including other members of the union bargaining committee and team leaders. The new local union president led the union efforts to make the team system work.

Tension reached a high point in the spring of 1988 in a rapid series of events: First, Van Nuys management fired the anti-team shop chairman, allegedly for lying about past absences. Then, the company unilaterally announced that the plant's seat-cushion operation would be farmed out to a subcontractor—at a cost of 130 union jobs—hardly an action designed to win labor's trust. Finally, Ernie Shaefer was transferred to a new assignment, raising doubts among both managers and workers about GM's commitment to the plant and the reorganization process. The new plant manager claims he fully supports the work-reform efforts, but tensions remain high.

Managers tend to explain away the problems at Van Nuys by saying that because the plant has never been closed, the work force hasn't suffered enough to be willing to embrace the new system. But workers at Van Nuys have in fact suffered through considerable uncertainty and dislocation. The entire second shift, half the work force, has been on long-term layoff. Moreover, some of the workers are recent transfers from other plants that have closed, and for years GM has threatened to close the Van Nuys facility as well.

Another common managerial explanation for the

*At Lansing, labor-management cooperation has improved productivity and the quality of work life without assaulting traditional union protections.*

Van Nuys failure is that the strong organized presence of union militants at the plant has made the plan unworkable. Even before the introduction of the team concept, union representatives and workers from Van Nuys had organized an active "labor-community coalition" to keep the plant open in the face of GM's threats to close.

However, this argument assumes that union activists will necessarily oppose labor-management cooperation. In fact, a number of coalition supporters have become team leaders and advocates of the new system. And at NUMMI, former militants from the old GM plant head the cooperation-oriented local union leadership.

The main difficulty at Van Nuys is not worker resistance but management's failure to reorganize itself for the tasks at hand. By contrast, management at NUMMI has taken a genuinely new approach, characterized in part by comprehensive attention to human relations. Both Van Nuys workers and NUMMI visitors to the plant—sent down by GM and the UAW to assist reform initiatives—say that management has asked for a major transformation of worker attitudes and job descriptions while on the shop floor its own personnel often cling to the same old authoritarian styles.

---

CASE #3

# LANSING

**"Homegrown" Cooperation**

GENERAL MOTORS' Plant #1 in Lansing, Mich., where the Pontiac Grand Am is made, has not received the publicity that NUMMI and Van Nuys have. Nonetheless, it is just as much an experiment in work reorganization. In this case, the new system is a result of an evolving cooperative relationship between the local management and local union. The reforms enhance the quality of work life and improve productivity without assaulting traditional union protections. Workers and union representatives have responded with widespread support.

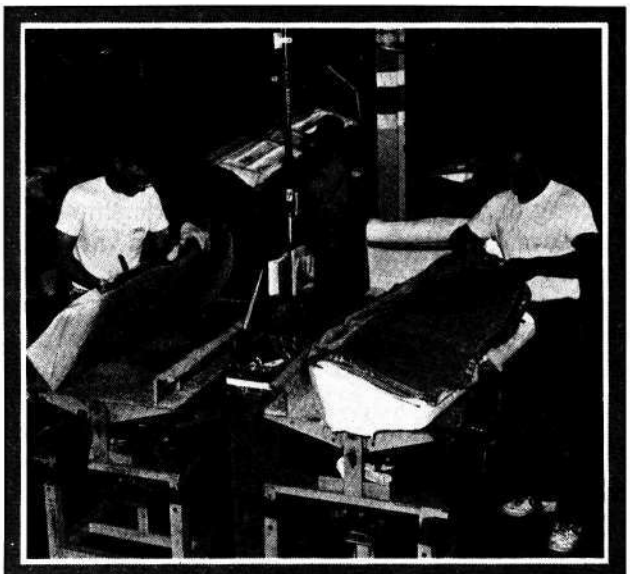
At Lansing, the team system looks rather different than at NUMMI or Van Nuys. Teams are larger, consisting of 10 to 25 members, and the full-time team coordinators are selected by seniority. What's more, participation in weekly team meetings is voluntary but popular, with interest high in the discussions of production, quality, labor-management relations, and general business developments. There are also more job classifications at Lansing than at NUMMI, although far fewer than at traditional auto plants. Several people at the plant have emphasized to me that the number of classifications is less important than getting people to work together as a team.

All the changes at Lansing have been carried out without a number of the conditions usually considered necessary for the success of team systems: job rotation, promises of employment security, weakened seniority rights in job allocation, or the "significant emotional event" of a plant closing.

A key factor has been the innovative approach of plant management, led since 1985 by Frank Shotters, a self-proclaimed "participatory manager." To enhance direct communication and clear responsibility, managerial levels have been cut from seven to four. All management staff meetings are open to the union. And managers at all levels have gone through a retraining program to replace authoritarian attitudes with a more participatory approach. Cooperation does seem to be increasing throughout the plant. Union representatives are regularly drawn into discussions and decision making right up to the level of the plant manager.

Both management and union have also chosen to persuade the workers that a team approach is worthwhile instead of simply imposing it on them. For example, in 1986, soon after teams were introduced, workers voted to make participation in them vol-

untary. As a result, participation dropped to a meager 30 percent. But neither union leadership nor management responded with stepped-up pressure and a second vote as is common in other GM plants. Rather, both set out to convince Plant #1 employees that the team structure could give the work force a new way to express its views. As a result, the voluntary participation rate is now in the range of 80 to 90 percent.



**Facing pressure from corporate headquarters to farm out the production of seat cushions, employees at GM's Plant #1 in Lansing devised a plan to organize work more efficiently. Local management accepted their proposals and found new assignments for the few people displaced.**

Managers and union representatives are quite conscious of Lansing as an alternative to NUMMI. At other team-oriented plants, they say, top management makes a decision and then groups of lower managers and workers discuss it until they all agree. At their plant, by contrast, workers, lower-level managers, and union representatives are consulted before decisions are made. And all groups are encouraged to participate in the decision-making process itself—from minor shop-floor decisions to strategic planning that affects the entire plant.

Given the established features of industrial relations in the U.S. auto industry, Lansing may represent a more suitable model for work reorganization than NUMMI's Fremont, Calif., plant. And the comparison between Lansing and Van Nuys is especially instructive. At Van Nuys, management's heavy-handed intervention in union politics may have induced slightly more than half the work force to accept a NUMMI-type system, but the price has been backlash and resistance on the shop floor. At Lansing, on the other hand, extensive labor-management cooperation has created a broad consensus in favor of work reorganization.

The difference between Lansing and Van Nuys can be seen in the response to last year's poor sales. At Van Nuys, management proposed an innovative layoff agreement. Instead of laying off workers strictly according to seniority as mandated by the union contract, the plan called for sharing the burdens and benefits of the layoff among the entire work force. Doing so would allow the plant to alternate shifts on layoff and keep its teams together. Workers responded with distrust, seeing the proposal as yet another attack on seniority rights. It took a bitter political debate and, once again, two votes before Van Nuys workers narrowly accepted the package.

At Lansing, the principle of seniority rights is not subject to debate, and a nearly identical plan was perceived for what it was—a relatively fair way to spread the costs of the layoff while keeping the plant as productive as possible. The proposal passed by 90 percent.

Management at the Lansing plant also faced pressure from GM corporate headquarters to cut costs by assigning the production of seat cushions to subcontractors, as happened at Van Nuys. But plant managers took the problem directly to the union and the workers in the cushion room. After months of joint discussions and brainstorming, the workers came up with a plan to organize work in the cushion room more efficiently, cutting a few jobs to save the rest. Management accepted the proposals, found new assignments for the few people displaced, and now says it will resist corporate pressure to farm out seat-cushion work.

### A New Quid Pro Quo

Lansing is not an isolated case. GM facilities such as the Lordstown, Ohio, assembly plant are developing similar homegrown versions of work reorganization. However, for every Lansing or NUMMI shooting out of the starting blocks, several more plants stumble along face to the ground. At some, management has hesitated to initiate major reorganization efforts for fear of causing new conflicts and disrupting production. And at others like Van Nuys, management has used high-pressure tactics to impose the team concept—hardly an approach that fosters the trust necessary for encouraging workers to become involved in problem solving and decision making.

Probably the greatest barrier to effective work reorganization in the auto industry is management's failure to adequately reform its own practices. To

make teams work, managers have to see reorganization efforts as an opportunity to involve the union, not defeat it, and to move decisively away from the authoritarian tradition of the past. A crucial first step would be to retrain current managerial personnel, screen new candidates for supervisory positions more carefully, and weed out uncooperative managers.

Whatever management's strategy, work reorganization will still pose serious challenges to U.S. unions. The UAW's national leadership has supported the move toward new working arrangements and generally assisted local unions that have negotiated experimental labor agreements with management. But it remains unclear whether the union can deliver on the promise to improve quality of work life throughout the entire industry. Indeed, as the various models of work reorganization multiply and locals devise different agreements at different plants, there is danger that the UAW will become more fragmented, thus diminishing its national power.

The most important task for the union is to develop its own vision of work reorganization—one that speaks to workers' aspirations for improved working conditions and more challenging jobs, as well as to management's imperative to create efficient work systems. Insisting on substantial participation in reorganization efforts before renegotiating local labor contracts would lay the foundation for a national union strategy equal to the competitive challenges of the auto industry in the 1990s and beyond. ■